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SOME NOTES ON THE NETTED DRAGON LIZARD

By S. R. WHITE, Government School, Morawa.

Dragon Lizards of one kind or another are familiar to most Australians; even those who live in the larger cities, and doubtless all of us have at some time disturbed the slender stick-like Bearded Dragon (*Amphibolurus barbatus**) or sent the tiny sand-loving Adelaide Dragon (*A. adelaidensis*) scuttling off to its burrow.

These were the species with which I became most familiar in the South-west, and in the bushlands about Perth. It was not until moving inland and northward into drier parts that I met the Netted Dragon (*Amphibolurus reticulatus*). A veritable dandy among Dragons, this lizard can surely boast to be one of our most highly-coloured reptiles.

A number of Netted Dragons occupying burrows in the Morawa school yard immediately attracted attention upon my arrival there in February, 1948. Several attempts were made to photograph them under natural conditions during the early part of the year; one male 9 in. long, in particular receiving a good deal of my attention. This lizard held a territory some twenty feet in radius, upon which he occupied, apparently at random, three burrows. He proved to be a rather difficult subject and I was never able to "shoot" more than his head. He would thrust his head and shoulders from the tunnel, bob his head up and down three or four times, draw his body forth only to turn suddenly and disappear when he saw the "evil eye" of the camera awaiting his reception.

Despite the fact that this portion of the play yard was frequented during recess intervals by over 140 children, the lizard continued to be observed sun bathing about the entrance of one or the other of his burrows until the first heavy falls of rain occurred during June. Rainfall sealed the entrances but warm

*This name is used with reserve as I do not consider that the Western Australian lizard is the same species as the true *Amphibolurus barbatus* of eastern Australia. It is smaller and does not display by distending the throat pouch in the characteristic manner of the eastern species.

sunny weather was usually accompanied by signs of fresh excavation at the tunnel mouth, and occasional glimpses of the lizard.

During the previous year at Coorow, while digging a hole, I unearthed a Netted Dragon during the cold season. The general colour was dull leaden with the underlying markings faintly visible. The lizard was very sluggish in its movements.

One sunny day in early September, I noticed freshly excavated burrows in another locality some fifty yards distant. With the aid of a garden trowel these were carefully dug out. Depth did not exceed six inches, and the total length of the longest burrow was slightly less than three feet. Direction changed frequently, probably for the purpose of avoiding roots, stones and other obstructions. From one of these burrows a female lizard was taken, and later on the same day two other females were also taken from burrows. In each case, when captured the lizards were of the same leaden coloration, but they rapidly brightened when placed in strong sunlight.

It will be seen, from an examination of the accompanying photographs, that there are remarkable differences between the sexes in this species; differences in fact so wide that superficial examination would lead to the belief that they were of entirely different species.

The highlight of my lizard observations occurred on October 12, the third or fourth day of cloudless skies and temperatures of over 90 degrees. A large male Dragon appeared unexpectedly on the territory held by our original male. A number of children were first to notice the unusual behaviour of the two lizards during the lunch-hour recess. They immediately formed a large arena some sixty individuals strong. The two lizards continued to perform fearlessly despite some comment by the audience.

Both reptiles were coloured to a highly spectacular degree, and a brief description made from notes taken at the time is given: Forehead and crown, rusty reddish-brown; general body colour, light sandy with a sharply contrasting overlying network of black; tail, ringed with greyish bands darkening towards the tip. Beneath the ridge of skin running along the sides between fore and hind limbs and dividing dorsal and ventral surfaces, along the sides of the belly, under the armpits and extending to the throat; a band of brilliant orange. This spectacular slash of colour was noted for the first time, on this occasion. It was subsequently seen during sexual or territorial excitement.

Both combatants stood with raised forequarters and upthrust heads, possibly to increase the range of vision or to reveal the characteristic male orange colour markings. Other forms of display consisted of head bobbing and gaping. Both lizards darted about and circled a good deal, at times making use of cape-weed and other small plants, upon which to climb. No actual direct assaults resulted, and eventually the stranger departed at high speed, in the direction from which he had arrived. A feature of the whole display was the unusual fearlessness of both, and a

most amusing charge culminating in three consecutive bipedal leaps, made by the victor, after the departure of his adversary, at a startled bystander who had ventured to approach too closely.

During each day of the following week, this lizard, and another male occupying burrows adjacent to a tennis court some fifty yards distant were seen on the tops of low bushes, and clinging to a wire netting fence, some three or four feet above the ground.



Female Netted Dragon.

The second lizard, situate by the tennis court, now became the object of closer observation because it could be conveniently watched throughout the day from a classroom window some four or five yards away.

On the morning of October 19, 1948, the tennis court lizard had a lady visitor. Both were seen clinging side by side to the wire netting about two feet above the ground; the orange slash of the male was distinctly visible even at a distance, in the strong sunlight. Both disappeared into the nearest of the local burrows when approached. It may be of some interest to mention here, that both male and female lizards had been previously captured and released on strange territories. In no case could they be persuaded to enter an unfamiliar burrow.

A further note taken on October 23 indicated that several males had again been seen "perched" at points from two to three feet above ground and overlooking their immediate territories. They showed great interest in any sudden ground movement, and I came to the conclusion that the desire to attain such eminences

may not have been entirely due to their love of sun basking. It may bear close relationship to the holding of territory. The range of ground vision of a small reptile must be strictly limited, and it would therefore be of considerable advantage to command a wider field of view.

An experiment was made to test the lizards' ability to locate a burrow invisible from ground level. While the male lizard was occupying a "perch" on the wire netting surrounding the tennis court, the entrances to each of his three burrows were carefully obstructed with stones. One burrow was immediately below the "perch," another some 15 yards distant across some uneven ground, and another about 10 yards further on. Immediately he was disturbed, the Dragon dropped to earth and attempted to enter the first burrow. Finding it blocked, he made off at high speed in a direct line for burrow number two, and made a perfect "landfall." Several seconds were wasted here in attempting to excavate a passageway, but finding attempts futile another direct dash was made to the third burrow. By this time, an assistant under direction had removed the stones from the first and second holes. No time was wasted at the third burrow, and the lizard made a long direct dash back to his original starting point and scrambled hurriedly to earth.



Male Netted Dragon at the entrance to a burrow that was occupied continuously for a period of over four months.

Only on the one occasion was a female observed "visiting" on this territory, but some days later, a female excavated two very shallow tunnels some twenty yards away. They were of insufficient depth to admit her whole length. As neither of these

were visible some days later, I formed the opinion at the time that they had been abandoned—perhaps because the earth was too hard for further excavation. Subsequent events have led me to believe that these may have been nesting burrows which were filled in after the eggs had been laid.

On December 15, over this same area, numbers of young Dragons, measuring about an inch long in the body and an inch and a half in the tail, were seen.



Male Netted Dragon, displaying at another male.

[S. R. White

Present observation leads to the assumption that males hold territory, probably to facilitate mating. Females appear from the few instances observed, to visit male territories—however, data is insufficient to form strongly founded conclusions. It is hoped during the forthcoming year to mark some of the lizards with spots of coloured enamel, and to tabulate their burrows with a view to better understanding their local movements. As no nesting burrows were found, no data on clutches, egg sizes and incubation were collected, but observations indicate that mating occurred in October and that young hatched in December.